ROAD MAKING.—Speaking of the materials fitted for road-making, Professor Ansted said, in one of his Lectures:—Slate, as a road material, might be put aside altogether, as it would never be used when other material could be obtained. When, however, in slate districts, it was necessary to use the first stuff that came to hand, it might be worth while to look for veins of *quartz*, which almost invariably intersected the beds of slate, and from that a tolerable road-stuff might be formed. Though quartz might thus be useful as an auxiliary, it did not form a good road material, being generally too brittle. Road-stuffs, to be unexceptionable, must combine with hardness a certain degree of toughness. Many materials possessed the requisite hardness, but were utterly deficient in toughness; and quartz was of this number. This was also the case with common *flints*, which were often used for roads. Such materials were very soon reduced to powder, by the combined effects of pressure and exposure, and then formed either dust or paste, according to the state of the atmosphere. The other kinds of sandstone rocks which were usable were not much better. *Millstone-grit* was preferable to quartz; but, generally speaking, the sandstone series did not produce a good road material. The best road-stuffs were formed of the igneous rocks, whether of the older period, such as *granite*, or intrusive, such as *basalt*. Granite was often exceedingly hard, and thus formed an admirable material for the paving of large cities, such as London, where it was incessantly exposed to the pressure of immense weights, and the action of the hoofs of horses. Granite, for this purpose, required to be selected with care, as there were some kinds which readily decomposed under a high degree of pressure, in consequence of its felspar being crushed. The Cornish granite, used in London, was better in large than in small fragments, being then less liable to be crushed. In many cases, however, where pavements of this kind had been taken up, the stones, though worn to an amazing extent, exhibited but little appearance of crushing. Basalt was well adapted for road-stuff, as it was hard, and found in great plenty. Its use, however, was confined necessarily to macadamized roads, being scarcely ever presented in masses large enough for London paving. In macadamized roads it was necessary to pay great attention to the way in which the various materials were decomposable, so that they might not act injuriously to each other, and to see that they combined the requisites of hardness and toughness. It might be observed with advantage, whether or not stones derived from igneous rocks were spheroidal in their construction; as, if they were, they would have a tendency to split when heavy weights passed over them. Such stones were also liable to decompose, and were, in that state, very bad. There were many kinds of good road-stuffs, but they possessed chiefly a local value.

ITALIAN TILES.—Sir: Will you permit me to correct a slight inaccuracy which appeared in THE BUILDER of last week, in reference to the new Catholic church at Surbiton? It is stated, that "all the roofs are covered with tiles made from a model obtained from Florence." Now the fact is, I manufactured these tiles for the architect, Mr. Parker, and they were made according to that plan of the Italian tiles which I invented these three years since, and for which invention I received from the Society of Arts and Sciences a medal. Although the tiles in question are of the same size, and similar in appearance, when on a building, to those of Florence, yet they are made on an entirely different principle. My tiles are slightly curved, and fit easily one into the other, and have a horizontal indentation across the upper part, to prevent the wind drifting the rain over the tile-head. The tile in the museum of the Royal Institute of British Architects is, as you know, flat, and without the horizontal indentation. As I have for many years paid much attention to the manufacture of Italian tiles, you will perhaps not deem me too intrusive in observing that Italian tiles, made similar to those in the Institute, are, upon a building, extremely liable to admit rain in this stormy climate. The tiles invented by me admit of having either narrow or wide vertical rolls, and possess a perfect security against rain.—I am, Sir, &c.,

Surbiton Hill. ROBERT BROWN.

PROJECTED WORKS, &c.—Tenders have been called for by advertisement, for the erection of a new church at Penrith; the erection of an engine-shed and workshops at Bristol, for the Midland Railway Company; the excavation, construction, and completion of a portion of a line of conduit for the Leeds waterworks; designs and formation of two new stained-glass windows for the parish church of St. Dunstan in the East; making cylindrical sewers, 616 yards and 198 yards in length, at Cambridge,—separate tenders, also, for making, erecting, and fixing two sluice-gates with brickwork, at Cambridge; for paving the yards of the Martley Union Workhouse with Broseley bricks, at per yard; for paving and kerbing the footpaths of several streets in Mile-End old town, and for a supply of about 24,000 feet of new 3 inch best York paving, and 9,000 feet of new flat, and 1,000 feet of edge best Guernsey granite kerbing, 12 by 7, for same hamlet; and for a supply of 500 tons of unbroken granite for the Mendicity Society.

WESTMINSTER PALACE.—A renewal of the old and exploded charges against Mr. Barry, with a discussion on it, took place in the Commons on the 17th instant, when a select committee was moved for by Sir R. H. Inglis, and objected to by Mr. Osborne, although he had himself revived the charge which he, even then, resolved into 'a charge of a graver nature, inasmuch as in the report of the commission appointed by the House of Lords, in 1844, he found that Mr. Barry was distinctly charged with having broken his contract, and laid out sums of money without the sanction of Parliament.' Lords Morpeth and Lincoln stoutly defended Mr. Barry; the latter reminding the House of his complete exoneration by the committee appointed in 1844, including even those who had displayed the greatest suspicion towards Mr. Barry. He thought his observations called for in fairness towards an honourable gentleman,—a member of an honourable profession.—Mr. M. Milnes said that if the architect were to be bullied, and unnecessarily limited as to time and expense, it would be impossible to expect a work of art worthy of the age and country. He maintained that no work of art of the same magnitude had ever advanced more rapidly than this had done.—All further proceedings in the matter were ultimately postponed till after the recess.

THE INSANITARY STATE OF THE CITY: METROPOLITAN PROGRESS.—Deputy Peacock last week presented the City Sewers' Commission report to the Common Council, giving notice of their application to Parliament for a new Sanitary Bill, and at the same time denied that the corporation had prevailed upon Lord J. Russell to exclude the city from sanitary regulation. "Mr. Lawrance" [we quote from the *Times*, with a few slight *corrections*, such as '*in*' for 'as,' '*he*' for 'they,' '*Governors*' (or councillors) for 'Government,' '*sprinkling*' for '*speculating*'], "described the report of the commissioners *in* a piece of most extravagant humbug. After looking around for a motive for some time, *he* had at last hit upon the cholera. Well, said *he*, *I'll* astonish the governors with the cholera, so up *he* went, and offered to put an end to the chances of admitting it [query, the report and its benefits into the city? or the cholera and its evils into the country?]. 'Ah!' said the governors, 'very good, but how will you proceed?' 'Why, we'll hear all the *Lawrances* who have been *besprinkling* with the contents of cesspools, gully-holes, churchyards, and privies, and make commissioners of them." Mr. Lawrance having proceeded in this style for some time, amidst the laughter of his auditors, at length concluded, when the report was agreed to, and the petition to Parliament adopted." With the exception of the few slight *corrections* in italics, we can vouch for the general accuracy of our transcript from the *Times*, which must have been imposed upon by a wilful mis-rendering of its own report, at the instigation of some printer's devil.——The consent of the Commissioners of Sewers, as required by Act of Parliament, our readers are aware, has been given to the proposed works of the Metropolitan Sewage Manure Company, which will be commenced forthwith.——The Westminster Sanitary Association held their first anniversary meeting at Dr. Aldis's, in Pimlico, on the 17th instant, Lord R. Grosvenor in the chair.

REPRODUCING ENGRAVINGS.—Mr. Calvert, in a lecture on chemistry, thus describes an easy means of reproducing printing, engravings, writing, &c., which has been very recently discovered. Take a piece of paper, dip it in a weak solution of starch, leave it to dry, and then moisten it with weak sulphuric acid. Afterwards take an engraving, put it over the vapour of iodine, and leave it there for the space of about five minutes, by which time the iodine will have fixed itself on every part that is black. Then take this engraving, apply it to the sheet of paper, press it for a minute or two, and the engraving is transferred. If this was the whole of the discovery, it would not be very important; but, if the thing can be done on paper, it can be done on steel, copper, and silver: and here is a ready means of engraving. If you want to engrave on copper or silver, put your engraving over iodine fumes, and then place it on the plate. If it is copper, put it over the fumes of hartshorn or ammonia, wash it, and the engraving is produced. If it is silver, proceed as if for daguerreotype, holding it over the vapour of mercury, and the engraving is produced. There is a more simple means still. Put the engraving over the fumes of orpiment for a few seconds, place it on a plate of copper, press it, and the engraving sinks into it.

RUBBING BRASSES.—At the Society of Arts, on the 8th instant, Mr. H. Cole made some remarks in reference to Mr. Archer's paper on "Sepulchral Brasses and Incised Stones," read at the last meeting. Mr. Cole observed, that about ten years since the study of brasses recommenced in this country, and during that period almost all that is known respecting brasses has been exhausted, and several works have been written on the subject. The most remarkable have been published by the Cambridge Camden Society, and in a book of great excellence, by Waller; others have also paid attention to the subject. The ordinary process of obtaining rubbings is as follows:—A sheet of paper is laid upon the brass, and kept in its position by weights; it is then rubbed over with a composition known as heel ball; by this means the whole of the paper where the brass is under it, not cut away, becomes blackened, while the incised lines remain the colour of the paper. In some cases a kind of bronze composition is used upon a black paper, and by this means as nearly as possible a fac-simile of the brass is obtained. The most important brasses to be found in London are in Westminster Abbey, St. Helen's, Bishopsgate, Allhallows, and St. Andrew Undershaft. Passing out of London, the nearest churches where any remarkable brasses are to be found are Willesden, Harrow, South Mims, St. Albans, Broxbourne, Cheshunt, Roystead, Cuigwell, Windsor, Stoke-Pogis, Taplow, Westerham, Penshurst, and Cobham.

MARBLE QUARRY, NEAR LEGHORN.—A marble quarry has recently been opened in Maremma, about thirty-five miles from Leghorn. The quarry appears to have been worked in ancient times, possibly by the Etrurians; and some chisels and picks have been found there which closely resemble those now in use. Mr. Powers, the American sculptor, thus speaks of it in a private letter:—"I intend to make the statue of Mr. Calhoun out of this marble, and it will, perhaps, be the first full-sized statue made of it in two thousand years. I am now making a bust of Washington from this marble somewhat larger than life, by way of an experiment. It is nearly blocked out, and I am satisfied already, that the effect will be all that could be wished. It is singular that the owner of the quarry is a Greek, who has found the marble, supposed to be peculiar to his own country, here in Tuscany. He can afford this marble for less than one-half the price of Carrara, on account of the great ease and small expense of excavating and taking it to the sea-shore. The marble has a rich warm colour, so desirable in statues and busts, and it is most beautiful in columns, mantel-pieces, and the like. The grain is coarse like the Parian, but it works smoothly and takes a high polish."

NATIONAL GALLERY FOR SCOTLAND.—A correspondence has just been brought to a close, which will probably lead to the establishment of a Scotish National Gallery in Edinburgh, the improvement of the Scotish Academy, and increased opportunities for the refinement of taste.

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